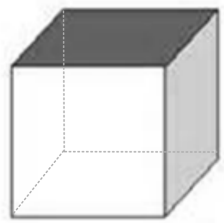
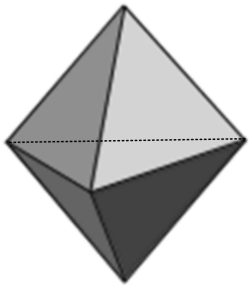
Hexahedron: Cube
6 faces are all congruent squares.



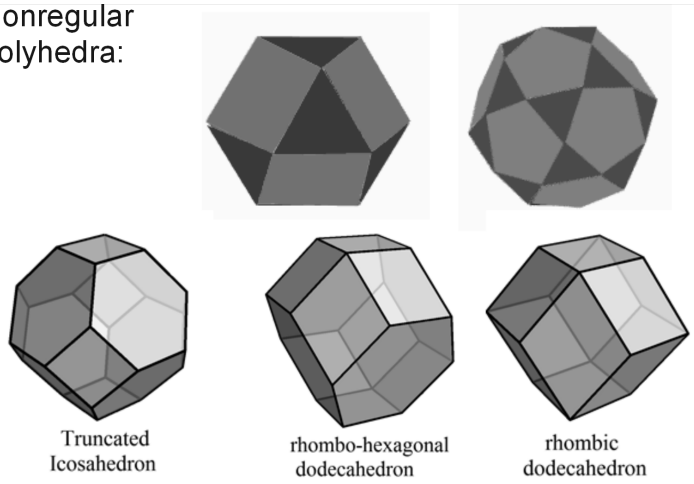
Octahedron:
8 faces are all congruent equilateral triangles.



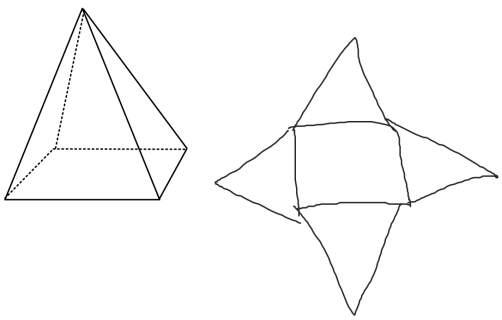
Dodecahedron:
12 faces are all congruent pentagons.

Icosahedron:
20 faces are all congruent equilateral triangles.

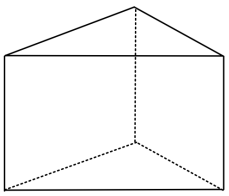
Nonregular polyhedra:



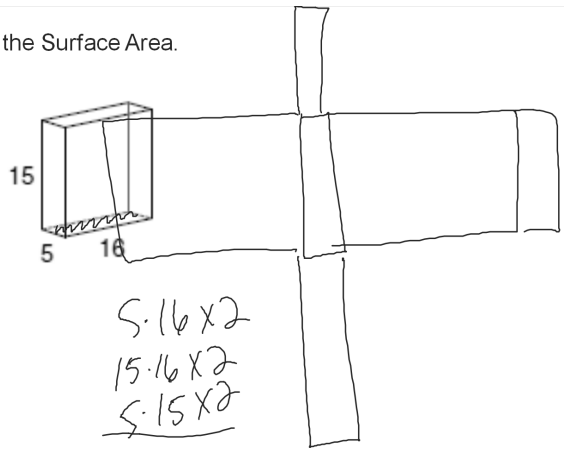

Draw a net for this Square Pyramid.



Draw a net for this Triangular Prism.



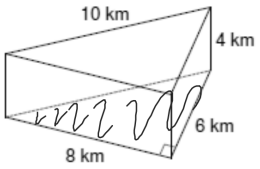
Find the Surface Area.




5·16×2
15·16×2
5·15×2

area = 790

Find the Surface Area.

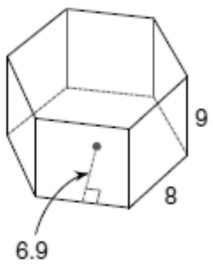



2 bases
$2\left(\frac{1}{2}bh\right) = 48$
$2\left(\frac{1}{2}\cdot 8\cdot 6\right)$

+

$SA = LA + 2B = 144$
$LA = ph$
Lateral Faces
$4\cdot 10 + 4 + 6 + 48$
$4(10+6+8) = 96$

Find the Surface Area.



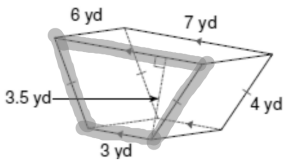

Hexagonal Prism

$SA = LA + 2B$
$= ph + 2B$
$SA = 48.9 + 2(165.6)$
$= 763.2$

$p = 8.6$

1 hexagon $= \frac{1}{2}ap = \frac{1}{2}(6.9)(48)$
$B = 165.6$

Find the Surface Area.



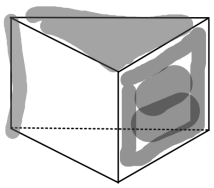

$B = \frac{1}{2}(b+b)h$
$= \frac{1}{2}(7+3)3.5$
$2B = 35$

Trapezoidal Prism

LA
$SA = ph + 2B$
$= (18)(6) + 35$
$= 143\ yd^2$

## Prism:

- A polyhedron with exactly two congruent, parallel faces, called BASES.
- Other faces are called LATERAL FACES.

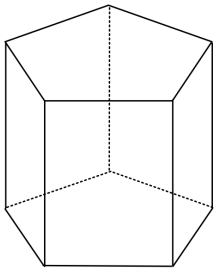


Base

Lateral Face

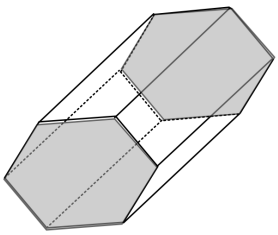
Lateral Edge

You name a prism by the shape of its base.



Pentagonal Prism

Identify the two bases of this prism and name it.



Hexagonal Prism

How many lateral faces are there?

six, the same as the number of edges in the Base.